

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
16 December 2004 (16.12.2004)

PCT

(10) International Publication Number
WO 2004/108273 A1

(51) International Patent Classification⁷: **B01J 20/18,**
B01D 53/04, B01J 20/34, B01D 15/00, C10G 25/05

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(21) International Application Number:
PCT/IB2003/002541

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,
CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD,
SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US,
UZ, VC, VN, YU, ZA, ZM, ZW.

(22) International Filing Date: **6 June 2003 (06.06.2003)**

(25) Filing Language: **English**

(26) Publication Language: **English**

(84) Designated States (*regional*): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,
SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM,
GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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Published:

— *with international search report*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: **METHOD FOR SULFUR COMPOUNDS REMOVAL FROM CONTAMINATED GAS AND LIQUID STREAMS**

(57) Abstract: Abstract Described is a desorption process and a process for producing a catalytically deactivated formed zeolitic adsorbent, whereby both processes are suitable to improve the lifetime of a formed zeolitic adsorbent in the removal of sulfur compounds from sulfur contaminated gas and liquid feed streams. The adsorbent is in particular a synthetic 13X or LSX faujasite with a silica to alumina ratio from 1.9 : 1.0 to about 3.0 : 1.0. The cations of the faujasite include alkali and alkaline earth metals. The formed zeolite mixture is preferably catalytically deactivated due to a phosphate treatment. The desorption is carried out thermally, wherein the heat treatment is done at different temperature stages to avoid decomposition of the organic sulfur compounds.

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